Avaya Solution & Interoperability Test Lab

Application Notes for Jabra LINK 35 EHS Adapter with Avaya 1600 Series IP Telephones - Issue 1.1

Abstract

These Application Notes describe the configuration steps required to integrate Jabra LINK 35 EHS (Electronic Hook Switch) Adapter and Jabra wireless headsets with Avaya 1600 Series IP Telephones. Jabra LINK 35 provides Jabra wireless headsets the ability to hear ring tones, answer and end calls, and mute/un-mute calls directly from the headset when the user is away from their desk. The Jabra PRO 9400 series and Jabra GO series headsets were used to verify the functionality of the EHS adapter. Specifically, the PRO 9470 and GO 6470 were used in the compliance test.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

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1. Introduction

These Application Notes describe the configuration steps required to integrate Jabra LINK 35 EHS (Electronic Hook Switch) Adapter and Jabra wireless headsets with Avaya 1600 Series IP Telephones. Jabra LINK 35 provides Jabra wireless headsets the ability to hear ring tones, answer and end calls, and mute/un-mute calls directly from the headset when the user is away from their desk. The Jabra PRO 9400 series and Jabra GO series headsets were used to verify the functionality of the EHS adapter. Specifically, the PRO 9470 and GO 6470 were used in the compliance test.

2. General Test Approach and Test Results

DevConnect Compliance Testing is conducted jointly by Avaya and DevConnect members. The jointly-defined test plan focuses on exercising APIs and/or standards-based interfaces pertinent to the interoperability of the tested products and their functionalities. DevConnect Compliance Testing is not intended to substitute full product performance or feature testing performed by DevConnect members, nor is it to be construed as an endorsement by Avaya of the suitability or completeness of a DevConnect member's solution.

Avaya's formal testing and Declaration of Conformity is provided only on the headsets/handsets that carry the Avaya brand or logo. Avaya may conduct testing of non-Avaya headset/handset to determine interoperability with Avaya phones. However, Avaya does not conduct the testing of non-Avaya headsets/handsets for: Acoustic Pressure, Safety, Hearing Aid Compliance, EMC regulations, or any other tests to ensure conformity with safety, audio quality, long-term reliability or any regulation requirements. As a result, Avaya makes no representations whether a particular non-Avaya headset will work with Avaya's telephones or with a different generation of the same Avaya telephone.

Since there is no industry standard for handset interfaces, different manufacturers utilize different handset/headset interfaces with their telephones. Therefore, any claim made by a headset vendor that its product is compatible with Avaya telephones does not equate to a guarantee that the headset will provide adequate safety protection or audio quality.

The interoperability compliance test included feature and serviceability testing. The feature testing focused on placing calls to and from the Avaya 1600 Series IP Telephones with the Jabra LINK 35 EHS Adapter and Jabra PRO 9400 and GO series headsets and verifying two-way audio. The call types included calls to voicemail, to local extensions, and to the PSTN.

The serviceability testing focused on verifying the usability of the Jabra wireless headsets after restarting the Avaya 1600 Series IP Telephones.

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2.1. Interoperability Compliance Testing

All test cases were performed manually. The following features were verified:

- Placing calls to the voicemail system. Voice messages were recorded and played back to verify that the playback volume and recording level were good.
- Placing calls to internal extensions to verify two-way audio.
- Placing calls to the PSTN to verify two-way audio.
- Hearing ring back tone for incoming and outgoing calls.
- Answering and ending calls using the call control button on the headset.
- Using the volume control buttons on the Jabra headset to adjust the audio volume.
- Using the mute control button on the Jabra headset to mute and un-mute the audio.

For the serviceability testing, a 1608 IP phone was restarted to verify proper operation of the headset after the reboot was completed.

2.2. Test Results

All test cases passed.

2.3. Support

For support on this Jabra headset solution, contact Jabra Technical Support at:

- Phone: (866) 697-8757
- Website: http://www.jabra.com/NA-US/Support/pages/Default.aspx
- Email: JabraSupport.US@jabra.com

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3. Reference Configuration

Figure 1 illustrates the test configuration used to verify Jabra LINK 35 EHS Adapter and Jabra wireless headsets with Avaya 1600 Series IP Telephones. The configuration consists of an Avaya S8300 Server running Avaya Aura® Communication Manager with an Avaya G450 Media Gateway providing connectivity to the PSTN via an ISDN-PRI trunk (not shown). Avaya Aura® Messaging was used as the voicemail system.

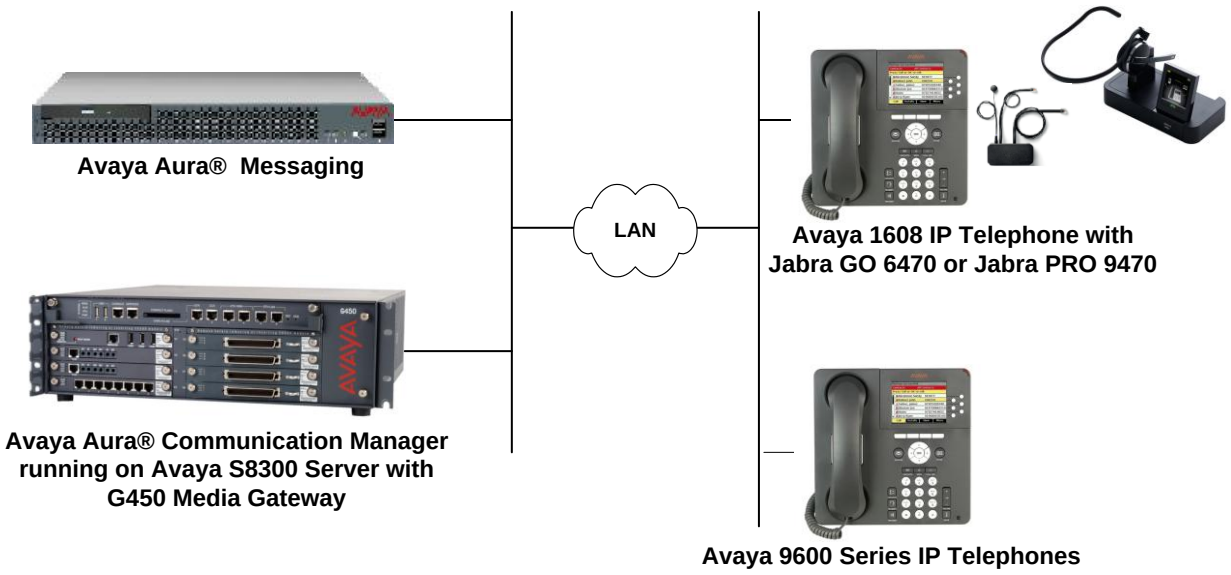
Avaya Aura® Messaging
LAN
Avaya 1608 IP Telephone with
Jabra GO 6470 or Jabra PRO 9470
Avaya Aura® Communication Manager
running on Avaya S8300 Server with
G450 Media Gateway
Avaya 9600 Series IP Telephones

Figure 1: Avaya 1600 Series Telephone with Jabra LINK 35 EHS Adapter and Jabra Wireless Headsets

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3.1. Answering, Ending, and Placing Calls

To answer, end, or place a call using the Jabra headset follow the instructions below.

To Answer a Call

- Press the call control button on the headset to answer an incoming call. This would automatically activate the headset button on the IP telephone.

  Alternatively, if the headset button on the IP telephone is pressed first, then press the call control button on the headset, if it isn't already activated, to answer an incoming call. Note that pressing the headset button on the IP telephone does not automatically activate the call control button on the headset.

- If auto-answer is enabled and the headset button on the IP telephone *and* the call control button on the headset are activated, subsequent incoming calls will be answered automatically and a two-way audio path will be established to the headset.

To End a Call

Press the call control button on the headset to terminate a call. This automatically deactivates the headset button on the IP telephone.

Alternatively, if the call is terminated by pressing the headset button on the IP telephone, the call control button on the headset remains activated. Note that pressing the headset button on the IP telephone does not automatically deactivate the call control button on the headset.

To Place a Call

Press the call control button on the headset to get dial tone and dial the number. This would automatically activate the headset button on the IP telephone.

Alternatively, if the headset button on the IP telephone is pressed first, the call control button on the headset needs to be pressed manually. Pressing the headset button on the IP telephone does not automatically activate the call control button on the headset.

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4. Equipment and Software Validated

The following equipment and software were used for the sample configuration provided:

Equipment/Software	Release/Version
Avaya Aura® Communication Manager running Avaya S8300 Server with a G450 Media Gateway	6.0.1 SP 5.01 (R016x.00.1.510.1 w/Patch 19303)
Avaya Aura® Messaging	6.0.1 SP 1
Avaya 1600 Series IP Telephones	1.301S (H.323)
Jabra LINK 35 EHS Adapter	P/N 14201-35
Jabra PRO 9470 Headset	--
Jabra GO 6470 Headset	4.5.17

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5. Configure Avaya Aura® Communication Manager

This section covers the station configuration for the Avaya 1608 IP Telephone. The configuration is performed via the System Access Terminal (SAT) on Communication Manager.

5.1. Configure a Station for Avaya 1600 Series IP Telephone

Use the **add station** command to create a station for the 1608 IP telephone. Set the **Type** field to the station type to be emulated. In this example, *1608* was used. Set the **Port** field to *IP* and configure a **Security Code** as that password to be used by the Avaya telephone to log in.

Note: To enable Auto Answer on the IP telephone set the **Auto Answer** field on **Page 2** (not shown) to the appropriate value, such as *all*.

```
add station 40004                                        Page   1 of   5
                                    STATION

Extension: 40004                        Lock Messages? n               BCC: 0
     Type: 1608                         Security Code: 40004            TN: 1
     Port: IP                         Coverage Path 1:                 COR: 1
     Name: Jabra                      Coverage Path 2:                 COS: 1
                                      Hunt-to Station:
STATION OPTIONS
                                           Time of Day Lock Table:
             Loss Group: 19          Personalized Ringing Pattern: 1
                                               Message Lamp Ext: 40004
           Speakerphone: 2-way              Mute Button Enabled? y
        Display Language: english
 Survivable GK Node Name:
          Survivable COR: internal              Media Complex Ext:
   Survivable Trunk Dest? y                          IP SoftPhone? n

                                                    IP Video? n
                             Short/Prefixed Registration Allowed: default
```


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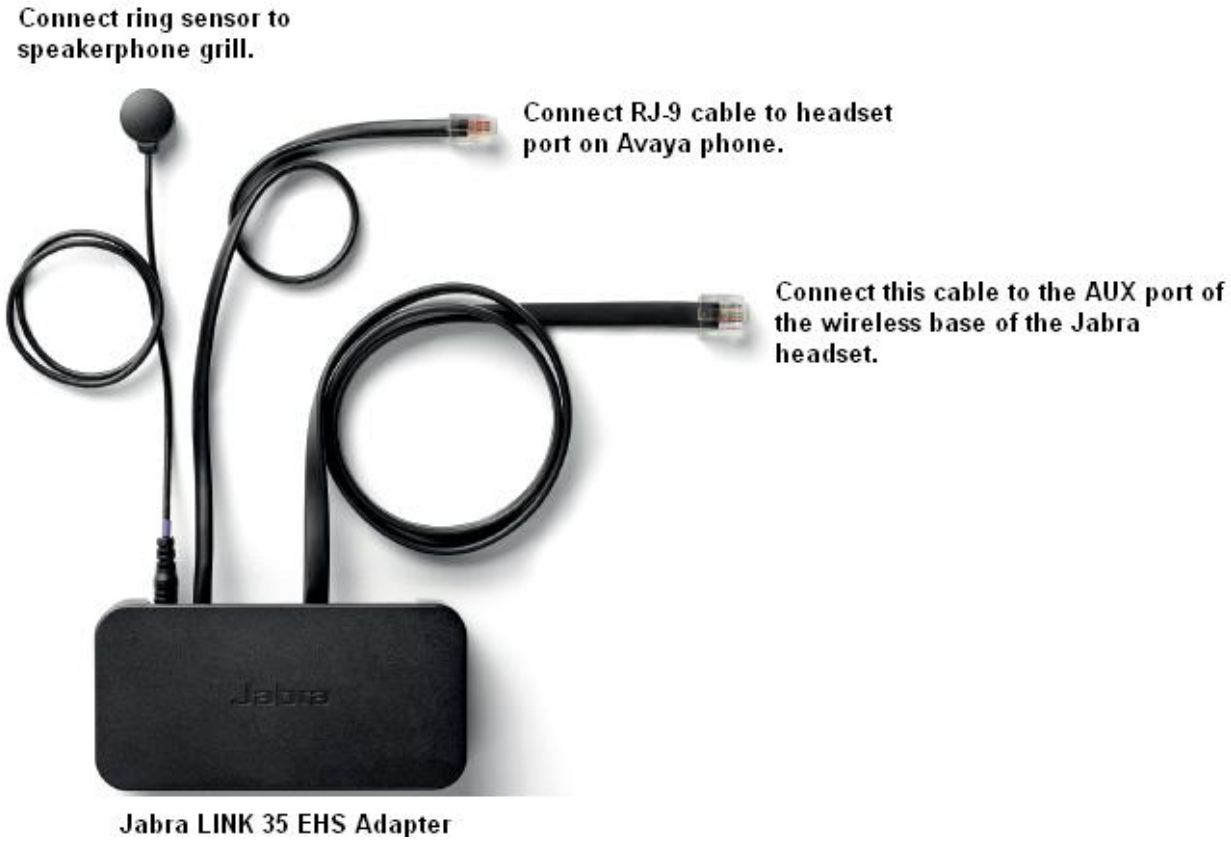
6. Configure Jabra LINK 35 and Jabra Wireless Headsets

To connect the Jabra wireless headsets to the Avaya 1600 Series IP Telephone, use the supplied AUX cable to connect the Jabra LINK 35 EHS Adapter to the wireless base of the Jabra headset via the AUX port on each device. Connect the RJ-9 cable from the LINK 35 EHS adapter to the headset port of the 1600 Series IP telephone. Lastly, connect the adhesive end on the ring sensor cable connected to the LINK 35 EHS adapter to the speakerphone grill of the Avaya 1600 Series IP Telephone. See the diagram below.


Connect ring sensor to speakerphone grill.
Connect RJ-9 cable to headset port on Avaya phone.
Connect this cable to the AUX port of the wireless base of the Jabra headset.
Jabra
Jabra LINK 35 EHS Adapter

For the GO series headset, use the touch screen on the wireless base to configure the cable type as described in the **[4]**. The LINK 35 EHS adapter should be configured to use the DHSG protocol.

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7. Verification Steps

Verify that the Jabra LINK 35 and Jabra wireless headset have been connected to the Avaya 1600 Series IP Telephone. Once the headset is connected to the phone, verify that incoming and outgoing calls are established with two-way audio to the headset and that the headset can get dial tone and end an active call.

8. Conclusion

These Application Notes describe the configuration steps required to integrate Jabra LINK 35 EHS Adapter and Jabra wireless headsets with Avaya 1600 Series IP Telephones. All test cases were completed successfully.

9. Additional References

This section references the Avaya and Jabra documentation that are relevant to these Application Notes.

The following Avaya product documentation can be found at http://support.avaya.com.

[1] *Administering Avaya Aura™ Communication Manager*, Release 6.0, Issue 6.0, June 2010, Document Number 03-300509.
[2] *Avaya 1600 Series IP Deskphones Administrator Guide*, Release 1.3.x, Issue 4, April 2010, Document Number 16-601443.
[3] *Avaya one-X® Deskphone Edition for 9600 Series IP Telephones Installation and Maintenance Guide*, Release 3.1, Issue 7, November 2009, Document Number 16-300694.

The following Jabra documentation can be found at http://www.jabra.com.

[4] *Jabra GO 6470 Quick Start Guide.*
[5] *Jabra PRO 9470 Quick Start Guide.*

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